BMP #33 - Temporary Storm Drain Diversion

Targeted Pollutants

- ● Sediment
- ○ Phosphorus
- ○ Trace metals
- ○ Bacteria
- ○ Petroleum hydrocarbons

Physical Limits

Drainage area 5 ac

Max slope 50%

Min bedrock depth NA

Min water table NA

SCS soil type ABCD

Freeze/Thaw good

Drainage/Flood control yes

DESCRIPTION

The re-direction of a storm drain line or outfall channel so that it may temporarily discharge into a sediment trapping device. The purpose is to prevent sediment laden water from entering a watercourse, public or private property through a storm drain system, or to temporarily provide underground conveyance of sediment laden water to a sediment trapping device.

APPLICATIONS

One of the following practices or procedures shall be used whenever the off-site drainage area is less than 50 percent of the on-site drainage area to that system. A special exception may be given, at the discretion of the local permitting authority, where site conditions make this procedure impossible.

DESIGN METHODS FOR TEMPORARY DIVERSION

- Construction of a sediment trap (basin) (see BMP #27) below a permanent storm drain outfall: Temporarily divert storm flow into the basin or trap constructed below permanent outfall channel

- In-line diversion of storm drain at an inlet or manhole: Achieved by installing a pipe stub in the side of a manhole or inlet and temporarily blocking the permanent outfall pipe from that structure. A temporary outfall ditch or pipe may be used to convey storm flow from the stub to a sediment trap or basin. This method may be used just above a permanent outfall or prior to connecting into an existing storm drain system.

- Delay completion of the permanent storm drain outfall and temporarily divert storm flow into a sediment trap: Earth dike (BMP #30), swale (BMP #29) or designed diversion is used, depending on the drainage area, to direct flow into a sediment trap. The trap should be constructed to one side of the proposed permanent storm drain location whenever possible.

- Installation of a stormwater management basin early in the construction sequence: Install temporary measures to allow use as a sediment basin. Since these structures are designed to receive storm drain outfalls, diversion should not be necessary.

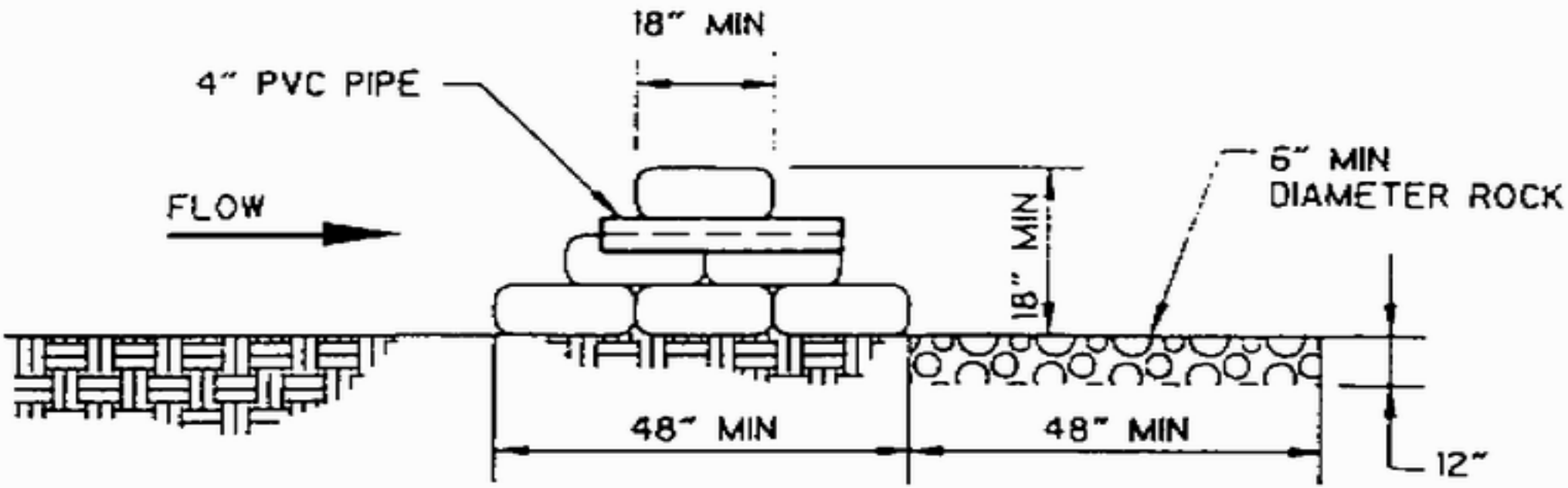
COMPLETION AND DISPOSITION

When the areas contributing sediment to the system have been stabilized procedures can be taken to restore the system to its planned use.

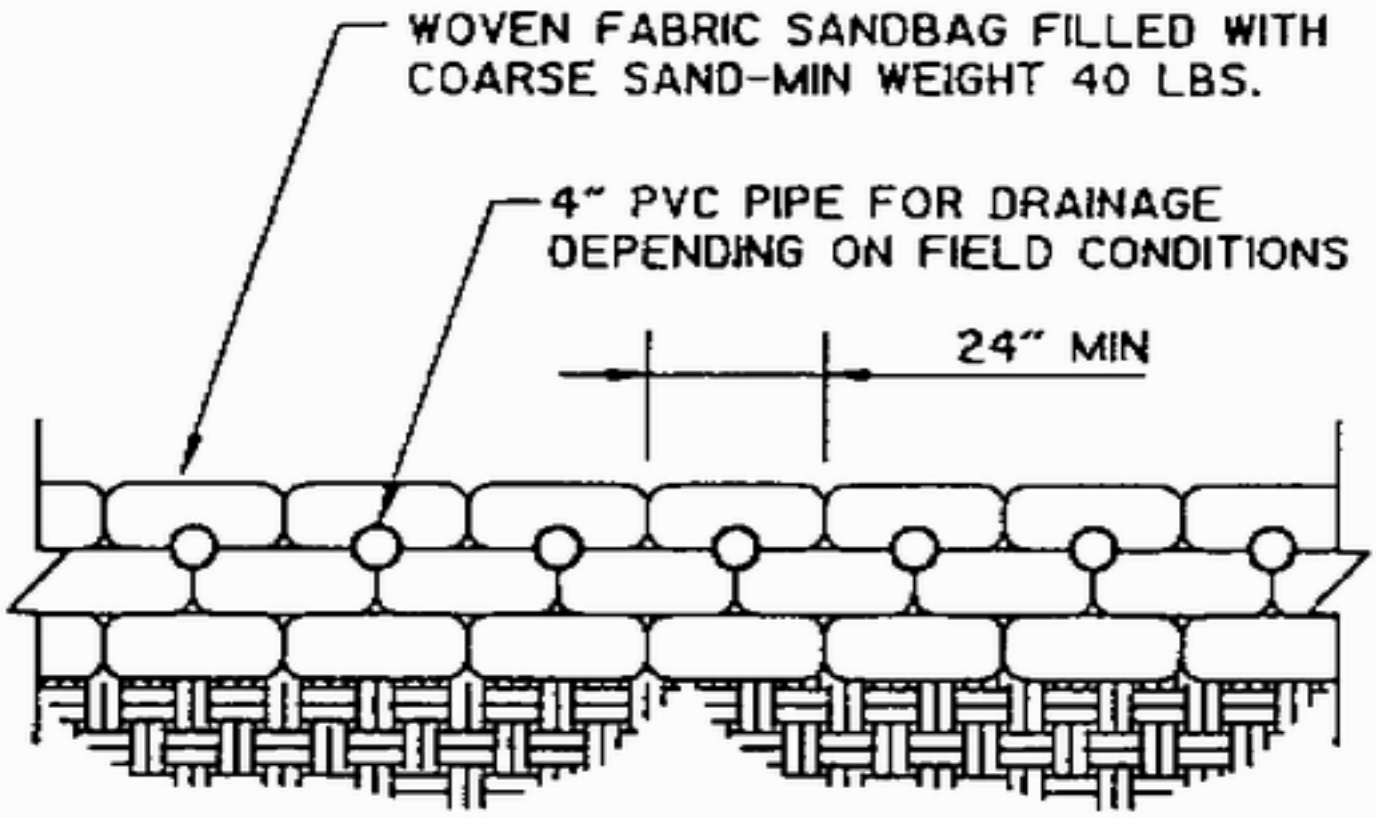
The following removal and restoration procedure is recommended:

1. Flush the storm drain system to remove any accumulated sediment.

2. Remove the sediment control devices, such as traps, basins, dikes, swales, etc.
3. For sites where an inlet was modified, brick shut the temporary pipe stub and open the permanent outfall pipe.
4. Establish permanent stabilized outfall channel as noted on the plans.
5. Restore the area to grades shown on the plan and stabilize with vegetative measures.
6. For basins that will be converted to stormwater management, remove the accumulated sediment, open the low flow orifice, and seed all disturbed areas to permanent vegetation.



CROSS-SECTION



FRONT VIEW

SAND BAG BERM